UTAH CITIZENS' ADVISORY COMMISSION ON CHEMICAL WEAPONS DEMILITARIZATION DESERET CHEMICAL DEPOT

THURSDAY, JANUARY 18, 2001 - 6:30 P.M.
DEPARTMENT OF ENVIRONMENTAL QUALITY BUILDING

MINUTES

Members Present:

BAUER, Dan	Tooele County
BOWMAN, Jane, MD	Western OB/GYN
DOWNS, Dennis	DEQ
GRIFFITH, Gary	Tooele County Commission
HOLT, Rosemary	Women Concerned
HULLINGER, Sid	Tooele County
KIM, Deborah	U of U
OSTLER, Dave	SAC
SILCOX, Dr. Geoff	U of U
WHITE, Beverly	Tooele County
WINTERS, Suzanne	State Science Advisor

Guests Present:

BILLS, Ray	TOCDF
BITTNER, Chris	DEQ
CALDWELL, Monte	PMCD-TOCDF
COLBURN, James	EG&G
CIRSK, Jim	EG&G
ENTZ, Ron	Citizen
ERNSTROM, Paula	CEM
FORD, Lindsay	Parsons Behle & Latimer
GRAY, Martin	UDEQ
GRENIER, Roger	TOCDF Safety Committee
HOLT, Reed L.	OME
HUFF, Susan	DCD
JOHNSON, Susanna	Sec. CAC
JONES, Donald H.	CAMDS
KURKJY, Tom	EG&G
LARSEN, Lorin	CEM
LEETHAM, Amy	Tooele Outreach
LEWIS, Mike	Army
McCLATCHEY, Sean	Citizen
MESESAN, Mark	EG&G
MILLER, Jim	DCD
MORSE, Martin	Battelle/EG&G
OLIVER, Harold	DCD
PATE, Col. Ed	DCD
RASMUSSEN, Kaylynn	EG&G
RASMUSSEN, Leean	Citizen
REAVES, Stephen	FEMA
SAUPE, Mike	TOCDF
SCHARMAN, Rob	SAIC
TAYLOR, Nadine	CEM
VAN NOY, Heidi	CAMDS
WALTERS, Clara	GOPB
WARBY, Clint	Tooele Outreach
WOOPS, Greg	Army
Yvez, Mue M.	DCD

WELCOME/MINUTES - Dr. Suzanne Winters

Suzanne Winters, Chair of the Citizens' Advisory Commission, called the meeting to order and welcomed all those in attendance. Dr. Jane Bowman moved to approve the October 19, 2000 minutes as written. Sid Hullinger seconded the motion. The motion carried. Rosemary Holt moved to approve the November 16, 2000 minutes as written. Danny Bauer seconded the motion. The motion carried.

FOLLOW-UP ITEMS:

Metal Emissions - Chris Bittner

Chris Bittner, Environmental Scientist with the Division of Solid and Hazardous Waste, discussed metal emissions in relation to the feed rates in the RCRA permit. Metals, used here loosely to describe inorganics, are indestructible and, when processed through the furnaces, emerge as a solid, such as the slag from the liquid incinerator and ton containers in the metal parts furnace (MPF). Metal emissions can be measured and captured in the pollution abatement system; however, some may be released from the stack.

During trial burns, correlations to the feed rate were demonstrated in all of the furnaces using the worst case waste feed. Metals were sometimes spiked (added) into the MPF and DFS to mimic the worst cases to be used later. There were 21 metals involved. The emission estimates from the trial burns were put into the risk assessment which became the basis for the permitted feed rates (i.e. how many ton containers may be fed simultaneously).

GB has trace concentrations of metals. There are also metals in the propellants, particularly lead and in the munitions bodies. "Embedded metals" are inert, for example an entire ton container which is fed into the furnace, comes out of the furnace as a whole. "Non-embedded metals" include things such as lead based paint on the containers which may be burned and blown out the stack.

DSHW looked at the trial burn data and proceeded on the assumption that metals are homogenous in GB. Some elevated concentrations of arsenic were observed in the pollution abatement system brine. Therefore, DSHW also looked at the GB feed from ton containers which had previously contained other chemical warfare agents which had reportedly been cleaned prior to reuse.

In 1997 and 1998, DSHW instituted a sampling program with TOCDF. Groups were sampled based on the history of the ton containers. From that sampling it was learned that GB purity varies; some ton containers had elevated arsenic levels and sludge was detected in one ton container.

With these results, DSHW granted limited approval for continued processing of GB ton containers for groups similar to those burned during the trial burn. DSHW also learned that prior to VX and mustard, more characterization up front will be performed such that questions will be answered prior to processing these agent munitions.

Additional information resulting from container sampling led to additional test burns on the LIC 1

in 1998. This test was for arsenic but also found elevated concentrations of mercury. DSHW went back to the risk assessment with these higher concentrations of metals in GB and determined that it would still not result in an unacceptable risk.

Last year, DSHW found sludge in a couple of the ton containers which contained elevated mercury and arsenic levels. This elevation is relative to what was tested during the trial burns forming the basis for the current limits. Alternatives to incineration are being explored for the treatment of these ton containers and the sludge. DSHW required additional characterization for ton containers in that particular group to ensure that these are represented by what was incinerated during the trial burns.

Other munitions, such as projectiles and rockets, pose some special sampling challenges. DSHW concurs with TOCDF that these munitions cannot be sampled in area 10. They are explosively configured and do not have a replaceable plug. These munitions were filled from ton containers; so what is in the ton containers should be representative of what is in the munitions. However, this, in fact, may not be the case. Based upon recent results, it appears that GB will react sometimes to what is in the munition. This creates, potentially, higher lead in some projectiles than in the ton containers.

DSHW will add a table in the Draft Permit so that feed rates may easily be determined. Mr. Bittner gave an example of how they calculate the overall averages (Attachment 1).

Questions
Geoff Silcox: How many ton containers are you going to screen to see if they are high in mercury and arsenic?
Chris Bittner: Right now we are not necessarily screening every ton container. We are screening every agent tank, which is about two ton containers. This is something that the facility has agreed with DSHW to do until we feel that we have our hands around this issue. We have looked at non-destructive testing and that is showing some promise.
Deborah Kim: Do you have any plans to plot the direction where the emissions from the stack go and sampling the dirt to see if it is picked up?
Chris Bittner: That is being done in a study called the Agriculture Impact Assessment. It is being done for the Pueblo facility here in Utah. The results are slow but I have seen some preliminary results.
Deborah Kim: I am specifically concerned about mercury. In the health care facilities we are on anti-mercury campaign. We are getting rid of all our mercury devices because, if they break, the potential exposure to the staff is much higher than anyone realized.
Chris Bittner: The pollution abatement system captures 95% to 99% of the metals but mercury goes right through, so we share your concern.
Deborah Kim: Have there been any random tests of the workers at TOCDF to see if anyone has been exposed?
Chris Bittner: I can't speak to their program.
James Colburn: I am not aware of any test, but I will verify it.

Ton Container Drainage and Disposal - Tom Kjurky
Tom Kjurky responded to a letter submitted to DSHW in March 2000 on an inadequately drained ton container.

TOCDF uses two methods to verify adequate draining of ton containers. The primary method is the *bubbler* system. The permit requires verification that 95% of the agent is drained. The backup system is called *load cells*. This is done by establishing an initial weight prior to drainage and weighing after.

In the March incident, the ton container was punched and drained. The *bubbler* verified that 97% had been drained but the *load cells* indicated that only 1405 pounds had been removed from the ton container. At that point, the ton container was moved forward for processing through the metal parts furnace based upon the *bubbler* reading. The operator immediately wrote a maintenance work request to have the *load cells* calibrated. No ton containers were processed until that calibration was conducted.

During the re-calibration the *load cells* were found to be out of calibration by three to five pounds. When ton containers are full, they weigh anywhere from 3000 to 3500 pounds. All ton containers prior to the one in question met both the *bubbler* and the *load cell* requirements of less than 5% heel. The ton that was processed after the ton in question also met that requirement. Research into the ton in question indicated it did not have 1500 pounds of agent. Some tons are called light and have less than 1500 pounds. Under the permit requirements, if there is any question of a proper drain, TOCDF is required to make an entry to the facility and dipstick the ton to verify less than 5% heel. This was not done in this case. However, the temperature in the MPF was within the normal range for a properly drained ton.

Questions
Suzanne Winters: If a ton container were not properly drained and fed into the furnace you would see a change in the temperature?
Tom Kjurky: Yes, we would see a higher temperature.

COMMISSION MEMBERSHIP

The Commission discussed whether the Tooele County Commission would like an opportunity to resubmit a name to sit on the Citizens' Advisory Commission, given the changes on the County Commission. It was suggested that Gene White would be a good candidate due to his familiarity with County emergency management. After discussion it was decided that Suzanne will readdress this matter with the new Chair of the Tooele County Commission.

STOCKPILE REPORT - Col. Bruce E. Pate

Col. Pate reported on January 10, 2001 DCD successfully moved non-stockpile chemical agent to Dugway Proving Ground for the Munition Management Device (MMD-1) testing. Dugway, Tooele County and Deseret Chemical Depot all cooperated in this effort.

DCD also shipped Simulated Equipment Test Hardware (SETH) to Umatilla. SETH is a simulated munition painted gold and filled with antifreeze used during shakedown of a new facility. DCD has shipped 26 of the 50 needed. This will provide Umatilla a variety of simulated munitions for use during the shakedown scheduled to start in early fall. DCD will start shipping to Anniston sometime this year. Col. Pate updated the CAC on the stockpile activity for the past two months (Attachment 2).

Questions
Beverly White: Don't you think the move to Dugway went so smoothly because nobody knew what was going on?
Col Pate: The plan was written in 1999 and we had public meetings regarding the shipment. It went exactly as written. We informed Tooele County which was involved through all planning phases and the operation.
Sid Hullinger: Was it done by helicopter and what was the route?
Col Pate: It was done by helicopter. The same helicopter made three round trips. The first one was at 8:00 a.m. and the last one landed at 2:00 p.m. The route was over Lookout Pass.
Suzanne Winters: Col. Pate earlier stated that this provided a good opportunity for exercising communications between the three entities.

PROGRAM STATUS - Monte Caldwell

Monte Caldwell, Acting Site Project Manager and TOCDF Deputy Project Manager, gave an update on the other facilities:

- **Aberdeen** (Maryland) is 14% complete and scheduled for completion in July 2003.
- **Anniston** (Alabama) is 96% complete. Pre-commissioning activities, construction and systemization activities continue. Reconfiguration of mortar rounds is 87% complete. Operations are tentatively scheduled to begin in late 2002.
- **Blue Grass** (Kentucky) had an Environmental Impact Statement (EIS) Scoping meeting on January 9, 2001 to discuss all of the alternatives, no decision was made.
- **Johnston Atoll** is finished except for cleaning operations and closure.
- **Newport** (Indiana) is 11% complete and is on schedule to be completed in 2002.
- **Pine Bluff** (Arkansas) is 38% complete and operations are scheduled to begin in 2003.
- **Pueblo** (Colorado) has done a lot of work on the EIS documentation. The decision will be made August 2001 as to the type of technology that will be used.
- **Umatilla** (Oregon) is 93% complete. Construction is scheduled to be completed this

summer. Operations will begin in the fall of 2002

Questions
Suzanne Winters: Do you have any information on how the Scoping meetings went at Blue Grass or other sites?
Monte Caldwell: No, but I think Blue Grass was pretty quiet. At the last Pueblo meeting, only pro- incineration people showed up.
***Speaker Unknown*:** The information I have on the Scoping meeting at Blue Grass is that it lasted all day, every hour on the hour and about 350 people showed up. Everybody was very appreciative of the exchange of information.
Rosemary Holt: Will you keep us informed on Kentucky and Pueblo?
Monte Caldwell: I will let you know as soon as any decisions are made.
Deborah Kim: There was mention in the media of some bomblets, with GB, found at Rocky Flats. I do not know if it is stockpile or non-stockpile. What is happening with those?
Monte Caldwell: That is a non-stockpile program. Right now they have brought in an apparatus to detonate these items. They are in practice mode right now. They are slated for January 27, 2001 to detonate the bomblets.
Suzanne Winters: Is this part of the MMD development?
Monte Caldwell: No, it is a separate piece of equipment that was brought in from England.
Col Pate: The system is called the Explosive Destruction System and it has been undergoing testing in England for quite awhile. It is designed to handle the explosion inside of the containment vessel.
Monte Caldwell: Next week the teams will have a pre-operation walk through of the entire operation. They have been rehearsing for the past couple of weeks, including emergency possibilities to the actual operations.
Deborah Kim: Does the explosion process incinerate the GB?
Monte Caldwell: Yes. The device will contain any off-gassing of any other materials.
Deborah Kim: What happens if there is agent detected in the device?
Monte Caldwell: What I know from my experience is that the emergency response team will go in and clean it up. We have a lot of experience at Dugway with detonating in open area detonation and we have had good luck. I will update you on this at the next meeting.

CAMDS UPDATE - **Donald Jones**

Don Jones, Acting Systems Manager, briefed the CAC on three programs at CAMDS.

- **GB Sampling for TOCDF**. Samples are extracted from 12 GB ton containers and analyzed for mercury and other metals. The preparation phase is complete. The work plan approval is in final stages. The extraction and procedural approvals are in final stages of approval. The program will begin the first part of February and completion will be in June 2001.

- **Continuous Steam Treater** for the ACWA program. CAMDS has completed 273 hours of the 500 hour run by putting a mix feed of carbon wood and PPE through the machinery. The operation is halted currently because the equipment plugged much too often. It became too man-hour intensive. Parsons stopped operations and took the equipment back to Pasco, Washington for modifications. Parsons submitted modification proposals to ACWA and hope to be begin again at CAMDS in March. The 500 hour run will be restarted in April.
- **Projectile Drain Washout** for the ACWA program. This consists of removal of explosives from 4.2 inch mustard mortars, a burster well removal station and a pressurized wash removal of the sludge heel. The wash solution consists of 1% caustic and water. The projectile bodies will then be treated in the metal parts treater to be installed at CAMDS. The mustard agent will be converted into a mustard hydrolysate. The demonstration test will be in March 2001. The washout demonstration and mortar treatment will be in the May time frame. The mustard hydrolysate will also be done in May.

PLANT STATUS - James Colburn

James Colburn, General Manager, provided an update on TOCDF (Attachment 3). He reported on three Level 3 incidents associated with HVAC Filter Carbon Change-out. TOCDF was changing the carbon in the first three beds in six of the filters. On November 25, 2000 there was a confirmed ACAMS reading in the Cotton Goods Storage Room. The source was determined to be from cotton goods used in the HVAC Filter change-out process. On November 26, 2000 there was a confirmed reading in the TAP Gear Room from TAP Gear used in the same process. On December 18, 2000 ACAMS alarms in the HVAC Filter 109 where torn bags had been used to place the charcoal trays was confirmed.

All of the readings were below 1 TWA with no exposure to any of the workers.

Questions
Sid Hullinger: What caused the ACAMS readings?
James Colburn: During the investigation it was discovered that because of very cold weather, the charcoal carbon absorbes the agent. As the employees exit the area, and if there is any charcoal dust on their protective gear, the ACAMS does not read it. But once moved into the Toxic Maintenance Area (TMA) and it is put into plastic bags, it heats up to room temperature and agent vapors will escape from the carbon.
Sid Hullinger: At the next meeting can we have a report on your findings and what you are going to do about it?
James Colburn: Absolutely.
Deborah Kim: Based upon the fact that as it heats up it is going to escape out of the carbon, has there been any thought to keeping these things outside where it is cold?
James Colburn: Eventually we have to move them to an area where they can be managed. In

order to make sure that the protective clothing is managed properly we have changed some of our procedures. We have elected to waste some of the protective clothing and manage it as a hazardous waste. I am sure we will have some other procedural changes as we go forward.
Geoff Silcox: What do you do with the spent carbon? Is it shipped offsite or landfilled?
James Colburn: It has not been shipped offsite. It is all being stored, and will be managed at a later date.
Geoff Silcox: How many tons are involved?
James Colburn: I don't know. I will tell you at the next meeting. Johnston Island is currently working through that process right now.
Geoff Silcox: Are false ACAMS still a problem? Are they currently occurring with the same regularity as they have been in the past?
James Colburn: They are greatly reduced in number.
Col. Pate: In the last two months, depot wide, we have had 65 alarms. Thirty three of them were non-confirmed. The rest were confirmed but inside engineering controls. There have only been six that were outside of engineering controls and all of those were in the storage room. Four were in leaker igloos and two were in igloos that had not been previously filtered.
Geoff Silcox: Does Tooele County have to be notified every time there is an alarm?
Col. Pate: We notify Tooele County every time there is an alarm or anything else of interest. Then we follow up when it is confirmed. The county knows when we report the likelihood of something that needs to be monitored. We also notify Utah County as part of that process. Our average time of notifying the county has been four and a half minutes.
Geoff Silcox: So there is not a problem either in the plant or Tooele County with complacency because of the frequency?
Col Pate: There has not been on our part and Kari Sagers continues to say that the county has no problem with complacency.
Suzanne Winters: If the clothing that is worn during the change-out of these filters is contaminated with carbon and that carbon is out-gassing when it is brought up to room temperature, does that also infer that when the ambient temperature rises in the summer for the carbon filters, that you would see out-gassing of those?
Monte Caldwell: There are seven beds within the filter bank and we monitor between those beds. There is a requirement that if breakthrough occurs on the second bed, the first three beds must be changed. There is not any off-gassing, but if a bed gets enough agent contaminated it will break through to the next one.
Suzanne Winters: When you take these things out are they overpacked?
Monte Caldwell: We take them out and bag them, put them in a box and triple bag them. We then put them in a storage container that is sealed. It might be noted that the three ACAMS readings were very low.

DIVISION OF SOLID AND HAZARDOUS WASTE UPDATE - **Marty Gray**

Marty Gray briefed the CAC the areas on which DSHW has been working.

- **Violation Compliance and Enforcement**. DSHW has resolved, with TOCDF, violations that were discovered during the 1998 inspection. The issues were resolved through a Consent Decree. The facility had already come into compliance so the only thing was left to resolve was a penalty. The penalty was $66,973. DSHW is currently in the process of negotiating a resolution for the Notice of Violation from the 1999 inspection. DSHW has drafted the 2000 inspection report and is evaluating the findings. Once the evaluation is finished, appropriate actions will be taken.

- **Permit Modifications** - There are currently no Class 2 or Class 3 permit modifications for TOCDF open for public comment. A number of small modifications are currently in DSHW which do not require public comment. The language is still being negotiated on the draft permit renewal.

- **Risk Assessment** - DSHW is completing the responses on the Risk Assessment Protocol. The protocol is in the final stages and once the responses to comments are complete, DSHW will begin to execute the risk assessment.

- **Dugway** - The non-stockpile munitions that were shipped to Dugway are currently in an igloo recently permitted by DSHW. Dugway hopes to begin GB operations on the MMD-1 within a month.

- **CAMDS** - CAMDS has applied for a Class 3 modification which will be approved soon. After DSHW gives the approval, CAMDS will be able to operate the metal parts furnace to process hazardous waste.

Questions
Jane Bowman: Do you have an idea when the protocol for the Health Risk Assessment will be finalized?
Marty Gray: Within a month or less.
Jane Bowman: Then the Health Risk Assessment will be finalized in about three months?
Chris Bittner: Yes, that would be a reasonable assumption.
Jane Bowman: Is it then presented for public comment?
Chris Bittner: Yes.
Jane Bowman: What is the purpose? Is it to inform or is it going to be revised again?
Chris Bittner: Mainly it is to ensure everyone's concerns have been addressed. It also acts as a final check.

Other Business - Suzanne asked about the possibility of members of the Utah Citizens' Advisory Commission visiting JACADS during the decommissioning of the JACADS facility. Monte Caldwell said that he would look into it.

Schedule of next meeting - The February CAC meeting will be held on February 22, 2001 in Tooele at the Tooele City Hall.

The meeting adjourned at 8:00 p.m.